

## **CLAIMS:**

What is claimed is:

- 1 1. A method comprising:  
2 identifying a processing capability of a remote device; and  
3 slowing an effective data rate within an Ethernet communication channel by selectively  
4 interjecting control elements between successive frames of substantive content associated with a  
5 communication session between a communication interface and a remote device.
- 6 2. A method according to claim 1, wherein identifying the processing capability of the  
7 remote device comprises:  
8 sending a capability request; and  
9 receiving a response to the request denoting at least the processing capability of the  
10 remote device.
- 11 3. A method according to claim 1, wherein identifying the processing capability of the  
12 remote device comprises:  
13 receiving an indication from the remote device denoting at least the processing capability  
14 of the remote device.
- 15 4. A method according to claim 3, wherein the indication also denotes a communication  
16 capability of the remote device.
- 17 5. A method according to claim 4, further comprising:

establishing a virtual channel within the Ethernet channel, the virtual channel having a reduced data rate than the physical Ethernet channel selected in accordance with the identified communications capability of the remote device.

6. A method according to claim 5, wherein dynamically generating the virtual channel within a physical Ethernet channel comprises establishing a sub-10Gb/S virtual data channel within a physical 10Gb/S data channel based, at least in part, on the identified communication capability of the remote device.

7. A method according to claim 1, wherein at least the processing capability of the remote device is obtained by the communication interface through auto-negotiation.

8. A method according to claim 7, wherein slowing the effective data rate of the communication channel comprises:

computing a ratio of processing capability of the remote device to a data rate of the communication channel; and  
selectively inserting a number of frames of idle control elements between successive frames of substantive content associated with the communication session based, at least in part, on the computed ratio.

9. A method according to claim 8, wherein the number of frames inserted reduces a rate at which substantive frames are received by the remote computing device to a level commensurate with the processing capability of the remote device.

1 10. An apparatus comprising:  
2 control logic, to identify a processing capability of a remote network device; and  
3 a media access controller (MAC), responsive to the control logic, to selectively reduce an  
4 effective data rate of a communication channel based, at least in part, on the identified  
5 processing capability of the remote network device.

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1 11. An apparatus according to claim 10, wherein the control logic sends a capability request  
to the remote device and receives a response to the request denoting at least the processing  
capability of the remote device.

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12. An apparatus according to claim 10, wherein the control logic receives a broadcast  
indication from the remote device denoting at least the processing capability of the remote  
device.

1 13. An apparatus according to claim 10, wherein the MAC is an 802.3ae compliant MAC  
2 enhanced to selectively reduce the effective data rate of the communication channel based, at  
3 least in part, on the identified processing capability of the remote network device.

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1 14. An apparatus according to claim 10, wherein the MAC selectively inserts a number of  
2 frames comprising idle control elements between successive frames of substantive content  
3 associated with the communication session between the apparatus and the remote device to  
4 reduce the effective data rate of the communication channel.

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1 15. An apparatus according to claim 14, wherein the MAC computes a ratio of the processing  
2 capability to the data rate of the physical communication channel to determine the number of  
3 frames comprising idle control elements.

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1 16. A storage medium comprising content which, when executed by an accessing computing  
2 device, causes the device to implement a scalable network interface to identify a processing  
3 capability of a remote network device, and to selectively reduce an effective data rate of a  
communication channel between the accessing computing device and the remote network device  
based, at least in part, on the processing capability of the remote network device.

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